

## CLAIMS

The improved design and function of this/these spark plug(s) and ignition enhancement components offer advantages over existing spark plugs.

- The inventor and prospective patent applicant, Colonel Tery Kolp, was informed in-person, on Thursday, 27 march 2003 by the U. S. Patent and Trademark Office staff by both the Commissioner of Patents Office [ Ms. Greenlief ] and later at the Patent Assistance and Inventors' Assistance Center in Arlington, Virginia after viewing Colonel Kolp's written draft of more than 18 pages and Colonel Kolp's Drawings labeled Figures 1 thru 8 [ Mr. James], that "Claims" are not now required to file a satisfactory and successful Provisional Patent Application that can provide the initial foundation for prompt protection of this inventor's invention(s) and thence a regular patent application, if filed within 12 months with corresponding longer term protection and rights for the inventor.

Therefore, it is submitted that patentable subject matter is clearly present. Accordingly, pursuant to MPEP 707.07(j), et seq., the inventor respectfully requests that the Examiner(s) write acceptable claims for the inventor's consideration and concurrence, etc.

### Claims Prepared by Applicant/Inventor

1. Specifically, a method for providing a higher-performance spark plug and engine ignition system, employing the inventor's improved spark plug design, utility configuration(s) and engine ignition system using piezo-electric enhancement configuration(s) and component(s); comprising:
  - a. a spark plug providing a more efficient ignition spark from its center electrode(s) to the ground electrode(s) using multiple paths;
  - b. also providing an open flame design which produces upon the electron flow(s) into and from this spark plug design and utility application plasmic-corona-like phenomena in the combustion chamber(s);
  - c. additionally providing for the spark plug burn which more efficiently chemically oxidizes hydrocarbon fuels and other flammables 20% to 50% or more faster;
  - d. additionally providing and permitting the more favorable timing of the engine(s); while further lowering both emissions and fuel consumption and also yielding improved relative horsepower and performance. Resulting from more complete and efficient electro-chemical combustion and reduced amounts of remaining unburned fuel per cycle(s) at cc and ml levels @ under-utilized fuel atoms/molecules and byproducts pollutants, etc.

- 2. Specifically, a method and improvement utilizing a piezo-electriomic® portion incorporated into and adjacent to individual spark plugs mounted and seated correctly into an engine, comprising:**
  - a. an invention also now uniquely providing improved specified plus fixed total optimal combustion data inputs and adjustments for many different specific engines, i.e., snow-blowers, snowmobiles, jet skis, certain generator engines, ground-based compressors and many others, eg., 4-cylinder 4-stroke gasoline engines, 6-cylinder, 4-stroke gasoline engines, 8-cylinder 4-stroke gasoline engines, aircraft engines, pumping station motors fueled by natural gas, and also 2-cylinder and single-cylinder 2-stroke engines, etc.**
  
- 3. Specifically, a new and improved integration of a spark plug and ignition system which method generates a more significant, substantial and large spark kernel, which results in:**
  - a. providing from the spark plug(s) a more relative flame turbulence inside the specific engine cylinder(s);**
  - b. providing, in turn, a vortex-like effect at the corona and plasmic level of ions, emanating from the spark plug delivered electron flow, commencing and continuing to react with the air/fuel mixture;**
  - c. providing, in turn, a localized vortex-like effect prospectively resulting in manifested correspondent fuel consumption reductions and various reduced bulk fuel requirements at various specific RPM speeds, engine temperatures, air/fuel mixtures, and combustion ratios, etc.**